

ABSTRACT OF THE DISCLOSURE

A surgical staple for use in creating an everted anastomosis of at least two anatomical structures includes a bendable staple body. At least two everting elements protrude from the staple body. Spacing elements and a penetrating element also are provided. In use, the everting elements and spacing elements are apposed, and inner layers of the anatomical structures are held together to form an everted anastomosis. The everting platforms are disposed on an outer radius of the closed staple, and the penetrating element is disposed on a different, inner radius, to ensure that the penetrating element is excluded from the lumen of the anastomosis.

Embodiments of the invention substantially ensure intima-to-intima approximation completely circumferentially at the anastomotic site, with no portion of cut tissue edges, suture or staple exposed to the lumen of the anastomosis. Cut tissue edges, as well as the staple, are completely extra-luminal. Related methods are also disclosed.